

TIMOKHINA, N.I., assistent.

Role of carbon in chlorination with gaseous chlorine. Biul. SAGU  
no. 26:53-56 '49. (MLRA 9:5)  
(Carbon) (Chlorination)

TIMOKHINA, N.I.

RT-76 (Sintering of salts and oxides). Spekanie solei i okislov.  
Zhurnal Prikladnoi Khimii, 22: 1063-1067, October 1949.

Kuusikoski, N. I., Tumokhina, L. M., Vaynshteyn,  
Na, Zav'yakata Kastelli, N. G., pp. 711-717, Rev. Applied  
Entomol. 27A, 626-7. In lab. investigations on the prepnu  
of stock emulsions, it was found that certain combinations  
of stock emulsions, Na soap and H<sub>2</sub>O pro-  
duced H<sub>2</sub>O-in-oil emulsions which were not suitable for  
large scale use in insecticides. "Instantaneous" emul-  
sions were substituted. The instantaneous stock emul-  
sions contained besides H<sub>2</sub>O, 1-1.5% oil, 10-12%  
soaps, 1-2% phenol, while from the H<sub>2</sub>O-in-oil emulsion  
it contained soaps, oil, benzene, and H<sub>2</sub>O. (Translated by  
Edwin F. Seiden)

*Sintering of salts and oxides.* A. Ya. ZVERKIN AND N. I. TIKHINA. *J. Applied Chem. (USSR)*, 22 [10] 1033-07 (1949).—Powders of  $\text{CaP}_2$  were fired in a porcelain crucible at 400°, 500°, 600°, and 700°C., while powders of  $\text{SiO}_2$ ,  $\text{CaCO}_3$ , and  $\text{Fe}_2\text{O}_3$  were fired at temperatures from about 600° to 1100°. The compressive strength of the sintered shapes was determined under a constantly increasing load. Curves of strength vs temperature indicate that strength of sintering is a characteristic of the solid material and reflects the changes occurring during the various temperature intervals. Experimental results support the following mechanism of sintering: Sintering is above all a diffusion of particles in the solid material; the mobility of particles and diffusion increase with rising temperature. The individual particles make contact in some places only, so that at first diffusion takes place gradually at these points of contact. In determining the strength of sintering, destruction takes place chiefly at these points of diffusion because here the particles are bound to one another less strongly than in the original crystalline material. As a result of the crushing of the shape, the grainning of the material changes and, in addition to the original grains, larger and smaller grains are also obtained. B.Z.K.

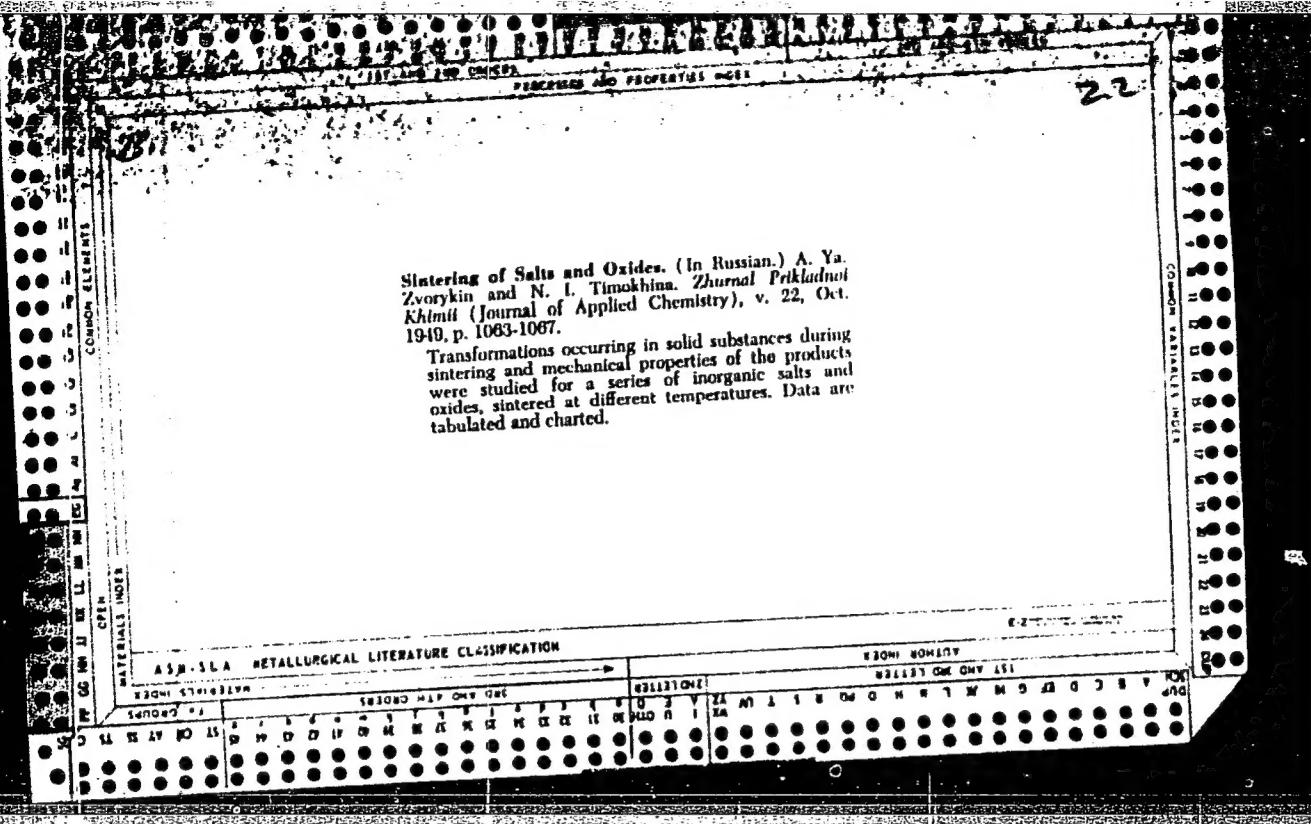
## ASH SEA METALLURGICAL LITERATURE CLASSIFICATION

E2011 ST.00170

S1033 M1P ONE ONE

E2011 R001

S1033 M1P ONE ONE 101



CA

Sintering of salts and oxides. A. Ya. Zivorykin and N. I. Fil'mukhina, Zhur. Priklad. Khim. (USSR) 1963, No. 11, p. 2711. In further development of the idea of Lammens and F. C. T. de G. (1955), establishing the empirical ratio of the temps. of beginning sintering of solid powders and their temp. of fusion,  $\frac{t_s}{t_f} = 0.44$  for salts, and 0.6 for oxides and nitrides, powder sintered at definite temp. above  $t_s$  were tested for mech. strength  $\sigma$  by depth of min. wt. necessary to crush specimen of lower diam.  $d_1$ , upper diam.  $d_2$ , height 20 mm. For NaP, NaCl, NaOH, Na<sub>2</sub>O, K<sub>2</sub>O, and K<sub>2</sub>O<sub>2</sub>,  $\frac{t_s}{t_f} = 0.65$ , 0.61, 0.61, 0.61, 0.61, and 0.61, located at 400°, 450°, 500°, 550°, 600°, or 650°, and 671.7 g./0.05 sq. cm., the reading within each batch series, with decreasing lattice energy of the salt. CaP, heated at 400-700°, reached only small  $\sigma$  of 0.3-0.4. Heating of Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> at 700-1000° resulted in  $\sigma = 2.7-11$ . With Ca<sub>3</sub>PO<sub>4</sub>,  $\sigma$  increased sharply with the temp. from 800° upwards, reaching 792.6 g. at 1000°; the turning point at 1000° obviously corresponds to beginning transition 1000° begins to sinter only at 1000°. For FeO<sub>3</sub>, the curve of  $\sigma$  with the temp. of heating reflects the transitions of that oxide. This is even more strikingly illustrated by the curve for CaCO<sub>3</sub>, showing very slow rise of  $\sigma$  up to 800°, followed by very fast increase above 800°; this 2nd portion of the curve evidently corresponds to CaO. Microscopic examn. of a crushed sintered powder shows redistribution of the originally homogeneous grain size, with an increase of the no. of both coarser and finer particles. This change of the granular picture confirms the representation of sintering as occurring at discrete points of contact between grains through mutual diffusion. Crushing disrupts preferentially such points of sintering. N. Thon

EXCERPTA MEDICA Sec 7 Vol 10/10 Pediatrics Oct 56

2189. TIMOKHINA P. P. Med. Inst. Kalinin, Omsk. • Experiment on early discharge of scarlet fever patients (Russian text)  
SOVETSK, MED. 1955, 9 (68-70)

In the USSR until 1950, patients with scarlet fever were isolated for 12-14 days and discharged from hospital at 40-42 days. In 1950 the period of isolation was set at 12 days and discharge at 30 days. In 1952 patients in good general condition who had had a normal temperature for at least 5 days, had no catarrh and a clear nasopharynx, and showed a leucocyte count under 15,000 with an erythrocyte sedimentation rate not over 13-20 mm./hr., were discharged at 21 days. A careful hygienic regime is described under which it is claimed that the course of the disease in children changed with a minimum of complications, a shortening of the hospital stay, and a decrease in the incidence of readmissions.

Gajdusek - Melbourne (XX, 7)

TIMOKHINA P.P.

TIMOKHINA, P.P.

Experience with early discharge if scarlet fever patients.  
Sov.med. 19 no.9:68-70 S '55. (MLRA 8:12)

1. Iz kafedry detskikh infektsiy (zav.-dotsent G.A.Sizemova)  
Omskogo meditsinskogo instituta imeni M.I.Kalinina na baze  
detskoy infektsionnoy bol'nitsy (glavnnyy vrach K.I.Shekurdina)  
(SCARLET FEVER)  
hospitalization & early discharge in Russia)

SINAYSKIY, Mikhail Mikhaylovich; TIMOKHINA, V.I., red.; VORONIN, K.P.,  
tekhn.red.

[Controls for alternating current electric motors in cranes;  
manual for installation, maintenance, and repair] Kontrollery  
dlia kranovykh elektrodvigatelei peremennogo toka; rukovodstvo  
po ustanovke, ukhodu i remontu. Moskva, Gos. energ.izd-vo, 1959.  
48 p. (Kranovoe elekrooborudovanie, no.2) (MIRA 12:11)  
(Electric controllers) (Cranes, derricks, etc.)

SOKOLOV, Nikolay Nikolayevich; ANDRIANOV, K.A.,red.; AKOPYAN, A.A.,red.;  
BIRYUKOV, V.G.,glavnnyy red.; BUTKEVICH, G.V.,red.; GRANOVSKIY, V.L.red.;  
GERTSENBERG, G.R.,red.; ZABYRINA, K.I.,red.; KALITVYANSKIY, V.I.,red.;  
KLYARFEL'D, B.N.; SAKOVICH, A.A.; TIMOFEEV, P.V.; FASTOVSKIY, V.G.;  
TSEYROV, Ye.M.; FRIDMAN, A.Ya.; SHEMAYEV, A.M.; TIMOKHINA, V.I.,red.

[Methods for the synthesis of organopolysiloxanes] Metody  
sintese poliorganosilosanov. Moskva, Gos.energ. izd-vo. 1959.  
198 p. (Moscow. Vsesoiuznyi elektrotekhnicheskii institut.  
Trudy, no.66) (MIRA 12:5)  
(Siloxanes)

KUZNETSOV, V.I.; GURIN, Ya.S., red.; TIMOKHINA, V.I., red.

[Asynchronous electric motors, piece series] Asinkhronnye elektro-dvigateli; edinaya seriya. Modifikatsii. [Moskva, 1951] 55 p.  
(MIRA 11:3)

1. Russia (1923- U.S.S.R.) Ministerstvo elektropromyshlennosti.  
(Electric motors, Induction)

*Timokhina V.I.*

RYABIKIN, Boris Pavlovich; TIMOKHINA, V.I., red.; VORONIN, K.P., tekhn.red.

[Stories about electricity] Rasskazy ob elektrichestve. Moskva,  
Gos.energ. izd-vo, 1958. 124 p.  
(MIRA 11:2)  
(Electricity)

TIMOKHINA, V. I.

GARNIYER, N.N.; LYUBIMOVA, T.N.; TIMOKHINA, V.I., red.; LARIONOV, G.Ye.,  
tekhn.red.

[Equipment for continuous vulcanization; a manual for technical  
study groups] Agregaty nepreryvnoi vulkanizatsii; v pomoshch'  
kruzhkam tekhnicheskogo obucheniia. Moskva, Gos. en erg. izd-vo,  
(MIRA 11:7)  
1957. 104 p.  
(Vulcanization)

timokhina, v. i.

VINOGRADOV, Nikolay Vladimirovich; TIMOKHINA, V.I., red.; MEDVEDEV, L.Ya.,  
tekhn.red.

[How to design and make your own electric motor] Kak samomu  
rasschitat' i sdelat' elektrodvigatel'. Moskva, Gos. energ.  
izd-vo, 1958. 159 p. (MIRA 11:?)  
(Electric motors)

ACC NR: AP6030017

SOURCE CODE: UR/0020/66/169/005/1068/1070

AUTHOR: Lazarev, A. I.; Timokhin, V. I.

ORG: none

TITLE: Thermal radiation of the earth that is scattered by aerosol layers

SOURCE: AN SSSR. Doklady, v. 169, no. 5, 1966, 1068-1070

TOPIC TAGS: thermal radiation, earth radiation, atmospheric scatter, thermal radiation detector

ABSTRACT: Experimental investigations of variations in atmospheric radiation in the spectral region  $3.5-5.2 \mu$  were carried out on the nights of 13 and 25 May 1964 in the Moscow region from an airplane at altitudes of 8 to 9 km by means of an infrared radiometer. The air temperature at this altitude was approximately  $-45^{\circ}\text{C}$  while the ground surface temperature was  $9-11^{\circ}\text{C}$ . The recorded difference of effective radiances of the night sky were approximately one order of magnitude greater than was to be expected from the thermal radiation of the atmosphere at a temperature of  $-45^{\circ}\text{C}$ , and this discrepancy is attributed to the thermal radiance of the earth which has been scattered by the aerosol layers of the tropopause and of the lower stratosphere. An expression is derived and used to compute the effective radiance as a function of the zenith angle. Presented by Academician A. A. Lebedev on 30 November 1965. Orig. art.

has: 4 figures, 5 formulas.

SUB CODE: 08,04/ SUBM DATE: 19Nov65/ ORIG REF: 007 UDC: 551.521  
Card 1/1

NIKULIN, Nikolay Vasil'yevich; TIMOKHINA, V.I., red.; BOHUNOV, N.I., tekhn.  
red.

[Manufacture of porcelain insulators] Proizvodstvo farforovykh  
izoliatorov. Moskva, Gos. energ. izd-vo, 1958. 239 p. (MIRA 11:9)  
(Electric insulators and insulation)

TIMOKHINA

TAREYEV, Boris Mikhaylovich; TIMOKHINA, V.I., red.; LARIONOV, G.Ye.,  
tekhn.red.

[Materials in electric engineering] Elektrotekhnicheskie materialy.  
Izd. 6., perer. Moskva, Gos.energ.izd-vo, 1958. 271 p.  
(MIRA 11:?)

(Electric engineering--Materials)

FROMBERG, Mark Borisovich; TIMOKHINA, V.I., red.; VORONTS, K.P.,  
tekhn.red.

[Heat-resistant electric insulation coatings] Teplostoikie  
elektroizoliatsionnye pokrytiia. Moskva, Gos.energ.izd-vo,  
1959. 110p. (Moscow. Vsesoiuznyi elekrotekhnicheskii  
institut. Trudy, no.65) (MIRA 13:2)  
(Electric insulators and insulation)

KAGANOVICH, Yevsey Aronovich; TIMOKHINA, V.I., red.; SKVORTSOV, P.P.,  
inzhi., red.; GEL'PERIN, B.B., kand.tekhn.nauk, red.; ASAEOF,  
P.M., tekhn.red.

[Testing of low and medium power transformers] Ispytanie  
transformatorov maloi i srednei moshchnosti. Moskva, Gos.  
energ.izd-vo, 1959. 239 p. (Transformatory, vyp.2).

(MIRA 13:3)

(Electric transformers)

TIMOKHINA, V.I.

KIREYEVA, Anna Ivanovna; PERESKOKOVA, Vera Filippovna; SPIRIDONOV, Georgiy  
Pavlovich; TIMOKHINA, V.I., red.; LARIONOV, G.Ye., tekhn.red.

[Metal weaving] Metallotkachestvo. Moskva, Gos.energ.izd-vo, 1957.  
142 p. (MIRA 11:1)  
(Wire screens)

SAKHAROV, Petr Vasil'yevich; TIMOKHINA, V.I., red.; VORONIN, K.P., tekhn.red.

[The technology of electric apparatus manufacture] Tekhnologija elektroapparatostroenija. Moskva, Gos.energ.izd-vo, Pt. 2. [Technology of electric insulation and housing equipment, casings, containers and machine parts, covering, and mounting] Tekhnologija elektroizoliatsionnykh i korpusnykh detalei, obolochek, rezervuarov i detalei mekhanizmov, pokrytiia, sborka. Izd.2-oe, perer. 1957. 408 p. (MIRA 11:1)  
(Electric apparatus and appliances) (Electric engineering)

BAYSTRYUCHENKO, L.V.; FILATOVA, M.V., KOCHETOV, V.V., redaktor;  
TIMOKHINA, V.I., redaktor; BARSUKOVA, Yu.V., tekhnicheskiy  
redaktor

[Paints and patterns for toys] Okraska i rospis' igrushek. Sost.  
L.V.Baystriuchenko i M.V.Filatova. Pod obshchey red. V.V.Kochetova.  
Moskva, Vses. kooperativnoe izd-vo, 1956. 94 p. (MLRA 9:8)

1. Nauchno-issledovatel'skiy institut igrushki.  
(Painting, Industrial) (Toys)

KUZ'MINOV, V.I.; TIMOKHINA, V.I., redaktor; BARSUKOVA, Yu.V., tekhnicheskiy  
redaktor; NATAPOV, M.I., tekhnicheskiy redaktor

[Mechanization of industrial metalworking processes; work practice  
of metalworking artels in Moscow] Mekhanizatsiya proizvodstvennykh  
protsessov metalloobrabotki; iz opyta raboty metalloobrabatyvaiu-  
shchikh artelei Moskvy. Moskva, Vsesoiuznoe kooperativnoe izd-vo,  
1953. 101 p.

(MLRA 7:10)

(Metalworking machinery)

BUNIMOVICH, David Zakharovich; TIMOKHINA, V.I., redaktor; BARSUKOVA, Yu.V.,  
tekhnicheskiy redaktor.

[Color photography] TSvetnaia fotografiia. Moskva, Vses.kooperativnoe  
izd-vo, 1955. 79 p. (MIRA 9:6)

(Color photography)

PERFIL'YEV, Vasiliy Ivanovich; TIMOKHINA, V.I., redaktor; NATAPOV, M.I.,  
tekhnicheskiy redaktor.

[Instruments and devices for open forging with sample methods  
of manufacturing the standard parts] Instrumenty i prispособleniya  
dlia svobodnoi kovki s primernoi tekhnologiei izgotovleniya  
tipovykh detalei. Moskva, Vses.kooperativnoe izd-vo 1955. 79 p.  
(Forging machinery) (MLRA 9:1)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7

TIMOKHINA, YA T.  
L. N. FOBISCHOV, CR 55, 303-6, 1947

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7"

TIMOKHINA, Ye.A.

Effect of noise in school shops on the students' organism. Uch.  
zap. Mosk.nauch.-issl. inst.san.i gig. no.7:101-103 '60.  
(MIRKA 15:2)  
(SCHOOL HYGIENE) (NOISE...PHYSIOLOGICAL EFFECT)

BELOSTOTSKAYA, Ye.M.; GLUSHKOVA, Ye.K.; GROMBAKH, S.M.; SUKHAREV, A.G.;  
TEESHEV, V.A.; TIMOKHINA, Ye.A.; PROTOPOPOVA, V.A.

Hygienic problems in the organization of work of students in agriculture.  
Gig. i san. 26 no.6:52-57 Je '61. (MIRA 15:5)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni  
F.F.Eriamana Ministerstva zdravookhraneniya RSFSR i Stavropol'skoy  
krayevoy sanitarno-epidemiologicheskoy stantsii.  
(CHILDREN IN AGRICULTURE--HYGIENIC ASPECTS)

TIMOKHINA, Yu. I.

PA 51/49T20

USSR/Electronics  
Ions, Positive  
Metallic Oxides

MAY 49

"Emission of Positive Ions by Incandescent  
Titanium, Zirconium, and Silicon Oxides," S. V.  
Starodubtsev, Yu. I. Timokhina, Leningrad Physico  
Tech Inst, 5 pp

"Zhur Tekh Fiz" Vol XIX, No 5

Optimal temperature for separation of positive  
titanium ions was 1,000° K. Positive molecular  
hydrogen-peroxide ion with mass 3<sup>1</sup> formed in this  
test due to reaction of adsorbed moisture with  
51/49T20

USSR/Electronics

(Contd.)

MAY 49

titanium oxide. Optimal temperature for obtain-  
ing zirconium ions was 2,000° K, the ionic  
current reaching 4·10<sup>-6</sup>A at this temperature.  
Ionic current for positive silicon ions was  
2·10<sup>-7</sup>A under stable conditions. Submitted  
7 Jul 48.

PA 51/49T20

KOROL'KOV, A. M.  
TIMOKHINA, Ye. N.

Mbr., Institute of Metallurgy Acad Sci (-1943-)

Mbr., Ural Machinery Plant (-1943-)

"The Resistance of Al-Si and Al-Cu Alloys to Surface Penetration by Water," Iz. AK Nauk  
SSSR, Otdel, Tekh, Nauk, No. 5-6, 1943.

BR-52059019

Mbr., Inst. of Metallurgy Acad Sci (-1943-)

Mbr., Institute of Metallurgy Acad Sci (-1943-)

Mbr., Ural Machinery Plant (-1943-)

"The Resistance of Al-Si and Al-Cu Alloys to Surface Penetration by Water,"  
Iz. Ak Nauk SSSR, Otdel. Tekh. Nauk, No. 5-6, 1943.

BR-52059019

*C-7*

Emission of positive ions by incandescent oxides of titanium, zirconium, and silicon. S. V. Starodubtsev and Yu. I. Timokhina. (Leningrad Phys.-Tech. Inst.). Zhur. Tekh. Fiz., 16, 606-10 (1949). (1) The emission was investigated by mass spectrography, with powders of the oxides held in a heated W wire spiral, in a vacuum of  $10^{-4}$  mm. Hg, acceleration to 1500 v. Presumably pure  $TiO_2$  emitted, up to 1000°K., only ions of impurities, particularly mass 34 ascribed to  $H_2O_2^+$ , and  $K^+$  and  $Na^+$ ; the amt. of the latter impurity ( $K^+$  +  $Na^+$ ) in the original prepn. could be estd. to  $4 \times 10^{-6}$ . Long heating at 1500°K. resulted in disappearance of the impurity ions, 1st  $H_2O_2^+$ , then  $K^+$  and  $Na^+$ , last  $Ca^+$ . Ions of  $Ti^+$  appeared at about 1000°K., followed, at still higher temp., by  $TiO^+$ . These peaks increased on further heating to 2000°K., then decreased owing to evapn. of neutral  $Ti$ ,  $TiO$ , and  $TiO_2$ . The optimum temp. for production of  $Ti^+$  ions is  $\sim 2000^{\circ}K.$ ; at this optimum, about 0.1% of the Ti present is emitted in the form of ions. The product remaining in the spiral is dark and consists in the main of  $TiO$ . With  $ZrO_2$  impurity ions are emitted first, and disappear at about 1200°K. The optimum temp. for emission of  $Zr^+$  is about 2200°K. The relative heights of the  $ZrO^+$  and  $ZrO_2^+$  peaks as compared with  $Zr^+$  vary with the length of heating, falling on prolonged heating at 2300°K. Long heating *in vacuo* evidently results in an impoverishment of the oxide in O and partial conversion of  $ZrO_2$  to  $ZrO$ . With  $SiO_2$ , emission of  $Si^+$  and  $SiO^+$  ions began at about 1000°K., i.e., close to the melting temp. of  $SiO_2$ . At 1000°K., the main peak is that of  $Si^+$ ; the peak of  $SiO^+$  is relatively low. A  $SiO_2^+$  peak appears at higher temps. With  $PbO$ , only emission of the impurity ions  $K^+$  and  $Na^+$  was observed between 800 and 1200°K.; heating to a higher temp. resulted only in disocn. of the  $PbO$  and evapn. of  $Pb$ , and no emission of

either  $Pb^+$  or  $PbO^+$  ions. (2) That space ionization in the vapor phase surrounding the incandescent spiral plays no significant role as compared with the surface ionization, was demonstrated by expts. with a spiral of smaller diam. and smaller potential drop along the spiral; the emission of  $TiO_2$  and  $ZrO_2$  remained unchanged. However, with  $SiO_2$ , emission of  $SiO^+$  and  $SiO_2^+$  ions was suppressed, and that of  $Si^+$  very strongly reduced. Thus the emission of  $Ti^+$ ,  $TiO^+$ ,  $Zr^+$ , and  $SiO^+$  ions is certainly due to surface ionization.  $SiO^+$  and  $SiO_2^+$  ion are most probably formed as a result of collisions of neutral  $SiO$  and  $SiO_2$  mole with electrons, of the type  $SiO_2 + e^- \rightarrow SiO^+ + 2e^-$  and  $SiO + e^- \rightarrow SiO^+ + 2e^- + Si^+ + O^- + 2e^-$ . This process is also responsible for the major part of the emission of  $Si^+$  ions; part of these ions may originate in surface ionization. N. Thom

6299. Emission of positive ions by incandescent oxides of titanium, zirconium and silicon. STARODUBTSEV, S. V. AND TIKHONOV; "YU. I." J. Tech. Phys. USSR, 19, 606-10 (May, 1949) In Russian.— $\text{SiO}_2$ ,  $\text{TiO}_2$ ,  $\text{ZrO}_2$  and  $\text{PbO}$  were heated by means of a W spiral formed being analysed by means of a mass spectrometer with a resolving power  $\approx 3\%$  of the mass.

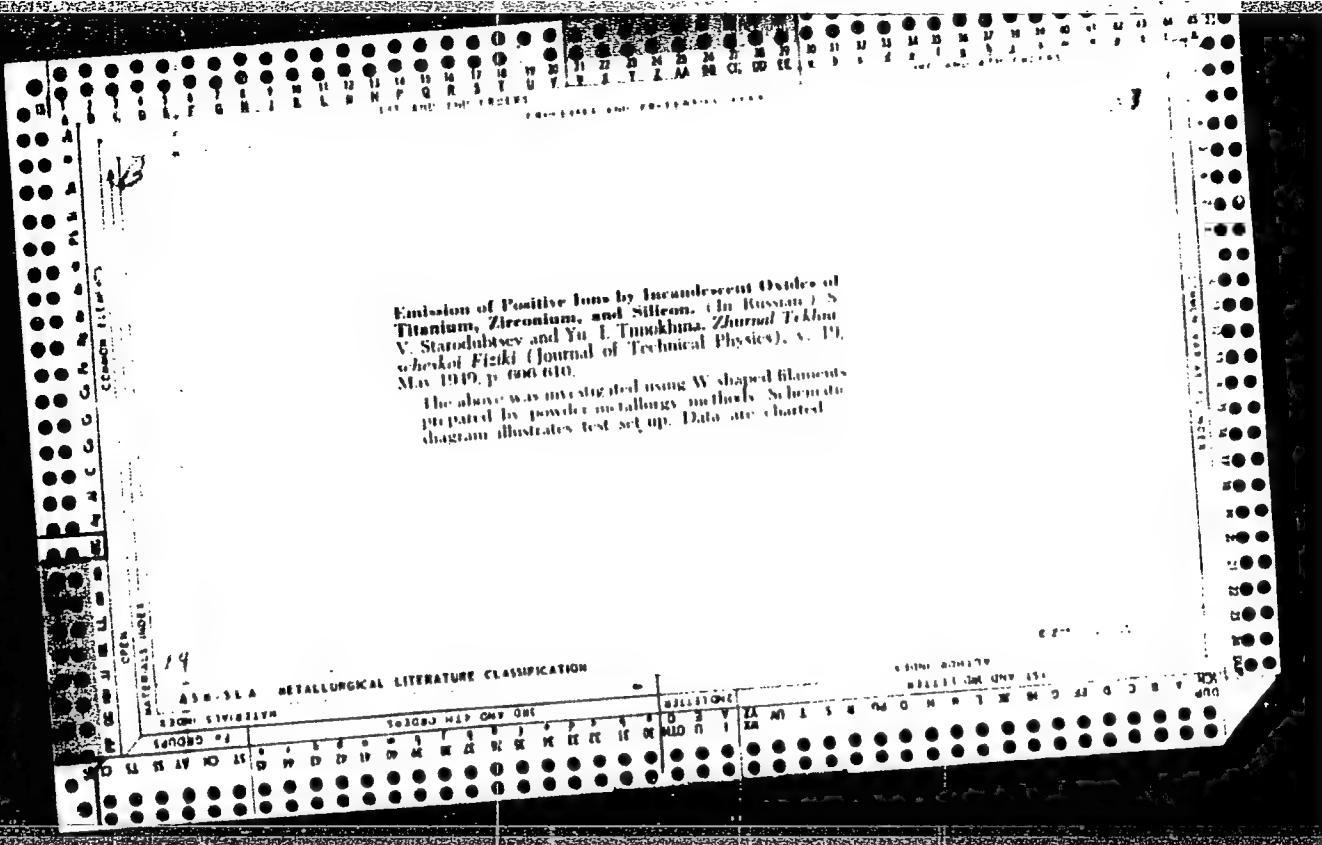
537.583

In all cases emission of  $\text{K}^+$  and  $\text{Na}^+$  was observed. The optimum condition for the emission of  $\text{Ti}^+$  was at 1 000°C;  $\text{Ti}$ ,  $\text{TiO}$  and  $\text{TiO}_2$  were also observed. The optimum temp. for  $\text{Zr}^+$  was approx. 2 200°C, the current due to  $\text{Zr}^+$  being  $4 \times 10^{-6}$  A at this temp.;  $\text{ZrO}_2$  and  $\text{ZrO}^+$  were observed. Emission of  $\text{Si}^+$  started at 1 900°C,  $\text{SiO}^+$  and  $\text{SiO}_2^+$  being observed, over a period of 3-5 min it was possible to maintain a current of  $\text{Si}^+$  of  $3 \times 10^{-6}$  A. In the case of  $\text{PbO}$ , evaporation of Pb occurred, no Pb or  $\text{PbO}$  being found. Control experiments carried out in order to exclude bulk ionization demonstrated the absence of any change in the character of the emission, in the relative values of both the atomic and molecular ion currents for  $\text{TiO}_2$  and  $\text{ZrO}_2$ . In the case of  $\text{SiO}_2$ , a sharp difference was observed, no  $\text{SiO}^+$  and  $\text{SiO}_2^+$  being observed; the max. corresponding to  $\text{Si}^+$  was scarcely observable.

A 53

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## ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION



TIMOKHOV, K.D.

Characteristics of the distribution of copper-sulfide,  
titanomagnetite, and apatite mineralization in the Volkovsk  
deposit (Central Urals). Geol.rud.mestorozh. no.1:35-46  
(MIRA 15:2)  
Ja-F '62.

1. Ural'skoye geologicheskoye upravleniye, Sverdlovsk.  
(Ural Mountains—Ore deposits)

TIMOKHOV, K.D.

Copper-sulfide and titanomagnetite mineralization of a platinum bearing belt in the gabbro-peridotite formations of the Ural Mountains. Sov. geol. 7 no.6:72-80 Je '64 (MIRA 18:1)

1. Ural'skaya kompleksnaya s"yemochnaya ekspeditsiya.

TIMOFEEV, S.A., Akhunzhaitsk, ul. Togolikova, 1, kv.13

Hand and finger injuries in steamer in northern Siberia. Date., travm. i protez. 25 no.7:44-46 JI '61.

1. Iz bel'bitsy Sevvodziravotdela (glavnyy vrach - N.Y. Kiryanov, konsultant - prof. G.A. Orlov).

ACC NR: AP7004810

(A)

SOURCE CODE: UR/0413/67/000/001/0149/0149

INVENTOR: Gladkiy, K. S.; Timokhov, Ye. P.; Yezhov, M. I.; Skibin, D. M.

ORG: None

TITLE: An atomizer for vacuum spraying. Class 75, No. 190247 [announced by the Scientific Research Institute of Paint and Varnish Technology (Nauchno-issledovatel'skiy institut tekhnologii lakokrasochnykh pokrytiy)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tvarynnyye znaki, no. 1, 1967, 149

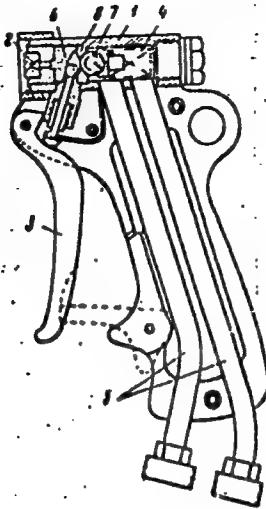
TOPIC TAGS: spray nozzle, atomization, vacuum technique, paint, varnish

ABSTRACT: This Author's Certificate introduces an atomizer for vacuum spraying paint and varnish materials. The unit contains a housing, spray nozzle, valve device with trigger mechanism and spring return, and pipelines for paint feed and circulation. The operating reliability of the atomizer is improved by balls located in the cavity of the valve device. A shut-off ball is forced out of the valve seat and put into reciprocating motion by an intermediate ball which is moved by the action of the trigger and spring-return mechanism.

Card 1/2

UDC: 667.661.23

ACC NR: AP7004810



1--housing; 2--nozzle; 3--trigger mechanism; 4--spring-return mechanism; 5--pipelines;  
6--intermediate ball; 7--shut-off ball; 8--valve seat

SUB CODE: 13, 11/ SUBM DATE: 23Nov65

Card 2/2

GEL'PERIN, N.I., doktor tekhn.nauk, prof.; AYNSHTEYN, V.G., kand.tekhn.nauk;  
TIMOKHOVA, L.P.

Hydrodynamic characteristics of the fluidization of granular  
materials in conical apparatus. Khim. mash. no.4:12-15 Jl-Ag '61.  
(MIRA 14:8)

(Fluidization)

TIMOKHOVA, M.I., inzh.

Performance characteristics of rubber molds in hydrostatic processing of electrical ceramic insulators. Elektrotehnika 35 no.2: 31-32 F '64.  
(MIRA 17:3)

ZVYAGIL'SKIY, A.A., kand.tekhn.nauk; TIMOKHOVA, M.I., inzh.

Investigating certain processes of hydrostatic pressing in rubber  
molds. Trudy GIEKI no.4:106-120 '60. (MIRA 13:1)  
(Ceramics) (Electric insulators and insulation)

ACC NR: AP6033939

SOURCE CODE: UR/0280/66/000/004/0095/0101

AUTHOR: Timonen, L. S. (Novosibirsk)

ORG: none

TITLE: Composition of optimum programs for the diagnosis of the state of complex technological systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1966, 95-101

TOPIC TAGS: computer program, set theory, computer programming

ABSTRACT: The author describes algorithms for writing optimum programs for the diagnosis of the state of complex technological systems, and provides an estimate of their complexity. Many problems of efficiency control and in tracing defects in complex systems may be formulated in the following manner: given a system, consisting of  $N$  elements connected in an arbitrary manner. Each of the elements is either functional or defective. Let  $S = \{s_t\}$ ,  $t = 1, 2, \dots, n$  ( $n \leq 2^N$ ) be the set of all possible system states, where  $s_t$  is represented by an  $N$ -dimensional vector, the  $v$ -th component of which equals 1, if the  $v$ -th component is functional, and equal to 0, if the  $v$ -th component is defective. The system may be in state  $s_t$  with a probability

$$p_t \quad (0 < p_t < 1, \sum_{t=1}^n p_t = 1)$$

Card 1/3

ACC NR: AP6033939

A finite number of tests  $\Pi = \{\pi_i\}$ ,  $i = 1, 2, \dots, m$  ( $m \leq 2^n - 2$ ) is given such that the test  $\pi_i$  which has a value of  $a_i$  ( $a_i > 0$ ) has two outcomes (positive and negative), and divides  $S$  into two sets  $S_i^1$  and  $S_i^0$ . If the system is in state  $s_t$ , then  $\pi_i$  has a positive outcome if  $s_t \in S_i^1$ , but a negative outcome when  $s_t \in S_i^0$ . If  $s_t \in S_k$  ( $S_k \subseteq S$ ), then test  $\pi_i$  divides  $S_k$  into

$$S_{ki}^1 = S_k \cap S_i^1 \quad \text{and} \quad S_{ki}^0 = S_k \setminus S_{ki}^1.$$

and its outcome reveals the subset ( $S_{ki}^1$  or  $S_{ki}^0$ ) where  $s_t$  occurs. The diagnosis of the system consists in the determination of its state by carrying out a certain succession of tests. It is assumed that during these tests the system's state does not change, and the execution in the extreme case of all tests of  $\Pi$  allows for any state of the system to be determined. Two programs are possible. The optimal conditional diagnostic program is one in which each successive test is chosen as a function of the outcome of the preceding test. The optimal successive diagnostic program means that each test of the system's state is carried out in a certain fixed order, irrespective of the outcome of the preceding tests. The author describes algorithms for the dynamic programming for both types of diagnostic programs. These algorithms are suitable for a small number of possible states  $n$ , and a small possible number of tests  $m$ , since their complexity increases considerably with the increase in  $m$  and  $n$ , thus requiring large memory capacity. Hence, for large values of  $m$  and  $n$ , it is advisable to use the method

Card 2/3

ACC NR: AP6033939

of successive approximation. The author expresses his gratitude to V. A. Kanevskiy and V. I. Rabinovich for useful advice and comments. Orig. art. has: 3 tables, 6 formulas.

SUB CODE: 12/ SUBM DATE: 02Jun65/ ORIG REF: 003/ OTH REF: 001

Card 3/3

L 20093-65 ENT(d)/EFF(n)-2 Po-l/Pq-l/Pg-l/Pu-l/Pk-l/PL-l IJP(c)/ASD(a)-5/ASD(s)/  
SESSION NR: AT4049339 AFMD(p)/AFMDC/ESD(dp) S/3005/64/000/006/0012/0024 WW/BC

BY: Timonen, L.S.

TOPIC: Optimal control systems

b7

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut avtomatiki i elektrometrii. Trudy\*, no. 6, 1964. Avtomaticheskoye upravleniye nepreryvnyimi protsessami (Automatic control of continuous processes), 12-24

TOPIC TAGS: automation, control system design, optimal control system, linear control system, amplification coefficient, control system model, automatic searching

ABSTRACT: Three types of optimal control systems are discussed and compared: linear systems with a large amplification coefficient, optimal control systems with a model, and automatic searching systems. The advantages and disadvantages of each system are discussed, and an analogy is made between linear systems with a large amplification coefficient and optimal control systems with a model. The basic characteristics of a system with high amplification in the direct or feedback chain are investigated, using several selfadjusting systems as examples. With an appropriate choice of the amplification coefficient, these systems provide the required dynamic characteristics irrespective of variations in the surrounding conditions and the characteristics of the objective. Optimal

Card 1/3

L 20093-65

ACCESSION NR: AT4049339

control systems with a model utilize a physical or mathematical model of the objective to determine the necessary conditions for optimal control. There are two basic types of mathematical models: a dynamic model is utilized when a process occurs in the objective which is described by a differential equation; a stationary model is applied when a process occurs in the objective which is described by an algebraic equation. An automatic search system is an optimal control system with a closed loop, in which the controlling action is produced by analyzing the influence of artificial changes in controlling action on the work of the system. The results of the analysis are utilized to optimize the control to the specified quality criteria. Although automatic search systems are limited by many factors, they are used extensively for optimizing the control of complex objectives in which investigations of dynamic characteristics are not sufficient. The choice of a concrete optimal control system depends on the problem assigned to the objective and on the requirements present in the control. It can be shown that the control of actions of linear systems with a large amplification coefficient where  $K \rightarrow \infty$  is equivalent to the optimal control system with a model. Linear systems with a large coefficient are simpler for practical realization. However, optimal control systems with a model provide better control over a wider range of changing internal conditions and dynamic characteristics of the objective. Orig. art. has: 4 figures and 10 formulas.

Card 2/3

L 20093-65

ACCESSION NR: AT4049339

ASSOCIATION: Institut avtomatiki i elektrometrii, Sibirsckoye otdeleniye AN SSSR  
(Institute of Automation and Electrometrics, Siberian Division, AN SSSR)

SUBMITTED: 15Aug61

ENCL: 00

SUB CODE: DP, IE

NO REF SOV: 004

OTHER: 015

Card 3/3

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7

RABINOVICH, V.I. (Novosibirsk); ROZOV, M.A. (Novosibirsk); TIMONEN, L.S.  
(Novosibirsk)

Problems and objectives of technical diagnosis. Avtomotria no.1,  
27-34 '65.  
(MIRA 18;7)

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7"

L 259/6-66 EWT(1)/EWA(h)

ACC NR: AT6011932

SOURCE CODE: UR/000/66/000/000/0099/0104

AUTHOR: Yemel'yanov, Yu. N. (Novosibirsk); Timonen, L. S. (Novosibirsk)

ORG: none

17  
B+1TITLE: Binary-sequence tester

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskому kontrolyu i metodam elektricheskikh izmereniy. 5th. Avtomaticheskiy kontrol' i metody elektricheskikh izmereniy; trudy konferentsii, t. 2: Izmeritel'nyye informatsionnyye sistemy. Ustroystva avtomaticheskogo kontrolya. Elektricheskiye izmereniya noelektricheskikh velichin (Automatic control and electrical measuring techniques; transactions of the conference, v. 2: Information measurement systems. Automatic control devices. Electrical measurements of nonelectrical quantities). Novosibirsk, Izd-vo Nauka, 1966, 99-104

TOPIC TAGS: random process, Markov process

ABSTRACT: The development is reported of a new tester for experimental determination of statistical characteristics of binary random sequences, i. e., homogeneous Markov chains. Such a chain may exist only in one of two incompatible states. Formulas for evaluating the probability of occurrence of a particular state are developed. The tester counts states  $A_1$  and  $A_2$  and also their combinations for the moments  $t_k$  and  $t_{k+N}$  (where  $N = 1, 2, \dots, 22$ ) of the sequence being tested. The states

Card 1/2

2

L 25976-66

ACC NR: AT6011932

*O*  
 $A_1$  and  $A_2$  are represented as 1 and 0 in the tester. The instrument has 24 electro-mechanical counters; two counters, 10000 units each, are intended for separate counting of 1 and 0; twenty-two counters, 1000 units each, record the combinations in 22 points of the sequence. Any combination (1 and 1, 1 and 0, 0 and 1) can be selected by a logical unit. Basically, the tester includes: (1) A two-cycle ferrite-diode shift register which stores the information, advances and delivers all values of a particular sequence; (2) A logical unit which controls the type of combination; (3) A counting device which counts the detected combinations. A block diagram of the tester is supplied, and its distinguishing features are noted. Orig. art. has: 1 figure and 16 formulas.

[03]

SUB CODE: 09 / SUBM DATE: 29Nov65 / ATD PRESS:

Card 2/2 FW

S/065/63/000/004/004/004  
A057/A126

AUTHORS: Bespolov, I.Ye., Guseva, A.V., Timacheva, O.I.

TITLE: On the dependence between the value of the heat-transfer coefficient and the lower heat of fuel combustion

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no. 4, 1963, 64 - 65

TEXT: The authors determined a linear function between the heat-transfer coefficient and the lower heat of combustion of reactive fuels which is expressed by the equation:  $Q_N = 9939 + 0.0615 \cdot K$  kcal/kg ( $Q_N$  = the determined combustion heat of the fuel,  $K$  = heat-transfer coefficient). The calorific capacity of industrial samples of reactive fuels calculated by this equation are practically the same as the experimentally determined values. The heat-transfer coefficient is calculated from data on density and the aniline point of the fuel, thus no special apparatus are necessary. The heat-transfer coefficients, heat of combustion, and calorific capacity of the Soviet reactive fuels of TC -1 (TS-1), T -1 (T-1), T -2 (T-2), and T-5 (T-5) grades and foreign fuels JP-1, JP-4, and ATK (aviation turbine kerosene) were determined. The results obtained

Card 1/2

On the dependence between the value of the ....

S/065/63/000/004/004/004  
A057/A126

could be used in continuous control of technological devices to exchange the complicated determination of the combustion heat with the determination of the heat-transfer coefficient. The method of determining the combustion heat by means of the heat-transfer coefficient could be introduced as a standard test method. There are 2 tables and 1 figure.

ASSOCIATION: VNII NP

Card 2/2

TIMONIN, M.A., kand. tekhn. nauk; SENCHENKO, G.I., kand. sel'khoz. nauk; ARINGSTEYN, A.I., kand. sel'khoz. nauk; GORSHKOV, P.A., doktor sel'khoz. nauk; ZHUKOV, M.S., kand. sel'khoz. nauk; DEMKIN, A.P., kand. sel'khoz. nauk; KRASHENINNIKOV, N.A., kand. sel'khoz. nauk; GORODNIY, N.G., doktor sel'khoz. nauk; REPYAKH, I.I., nauchn. sotr.; PIL'NIK, V.I., kand. sel'khoz. nauk; KHANIN, M.D., kand. sel'khoz. nauk; TSELIK, V.Z., st. nauchn. sotr. [deceased]; KOZINETS, N.I., nauchn. sotr.; ZHAININA, L.S., nauchn. sotr.; LYASHENKO, S.N., kand. sel'khoz. nauk; GONCHAROV, G.I., inzh.; BUYANOV, V.I., inzh.; RUDNIKOV, V.N., st. nauchn. sotr.; BLOKHINA, V.V., red.; PROKOF'YEVA, A.N., tekhn. red.; SOKOLOVA, N.N., tekhn. red.

[Hemp] Konoplia. Moskva, Sel'khozizdat, 1963. 462 p.  
(MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanykh kul'tur (for all except Blokhina, Prokof'yeva, Sokolova).  
(Hemp)

VOZNESENSKIY, Yevgeniy Pavlovich; BROVCHENKO, Ignatiy Savol'yovich;  
Prinimal uchastiye TIMONIN, M.G.; MARDER, I.M., retsenzent;  
RYZHOV, A.D., retsenzent; ABELTIN'SH, A.Ya., retsenzent;  
AKIMOVA, L.D., red.; PECHENKINA, O.P., tekhn. red.

[Accounting in food industry enterprises] Bukhgalterskii  
uchet na predpriatiiakh pishchevoi promyshlennosti. Mo-  
skva, Pishchepromizdat, 1963. 342 p. (MIRA 17:2)

ACC NR: AF7002845

SOURCE CODE: UR/0136/66/000/012/0084/0086

AUTHOR: Dergunova, V. S.; Timonin, P. L.; Kuzin, A. N.; Tsaytlin, V. Z.

ORG: none

TITLE: Properties of tantalum diboride-zirconium diboride alloys containing chromium

SOURCE: Tsvetnyye metally, no. 12, 1966, 84-86

TOPIC TAGS: alloy composition, hardness, porosity, metal melting, chromium containing alloy, tantalum base alloy, boride, zirconium base alloy

ABSTRACT:

TaB<sub>2</sub>-ZrB<sub>2</sub>-Cr alloys containing 20, 25 and 30% of ZrB<sub>2</sub> and 3-10% Cr were obtained from ZrB<sub>2</sub> (79.6% Zr, 19.67% B, 0.01% C) TaB<sub>2</sub> (89.18% Ta, 9.97% B, 0.01% C) and 99.9%-pure Cr powders by compacting at 2100-2200C under a pressure of 220 kg/cm<sup>2</sup> and homogenization at 2000C in an argon atmosphere. Depending on the composition, the porosity of alloys varied from 0.5 to 3-4%. The alloys consisted mainly of a solid solution of zirconium boride in tantalum boride with a microhardness of 2900-3300 kg/mm<sup>2</sup>, and a solid solution of chromium boride in tantalum boride with a microhardness of 1000-1200 kg/mm<sup>2</sup>. In addition, fine grains of a third phase,

Card 1/3

UDC: 669.294/296

ACC NR: AP7002845

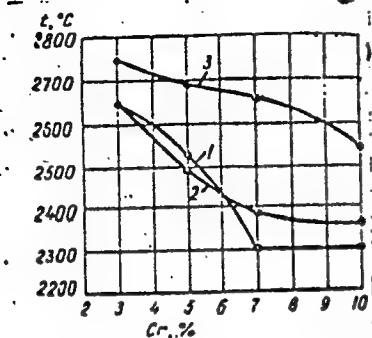
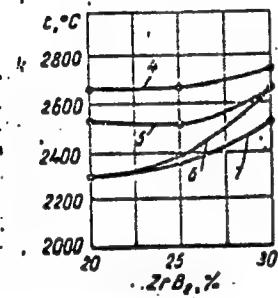


Fig. 1. Composition dependence of the melting point of  $TaB_2-ZrB_2-Cr$  alloys

$TaB_2:ZrB_2$  ratio: 1 - 80:20; 2 - 75:25;  
3 - 70:30; Cr additions: 4 - 3%; 5 - 5%;  
6 - 7%; 7 - 10%.



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ACC NR: AP7002845

probably chromium boride, were observed along the second phase grain boundaries. The composition dependence of the melting temperature of TaB<sub>2</sub>-ZrB<sub>2</sub>-Cr alloys is shown in Fig. 1. Increasing the chromium content from 3 to 10% lowered the strength (hardness) of the alloys both at room and at elevated temperatures, but increased their oxidation resistance. Orig. art. has: 5 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 005/ ATD PRESS: 5113

Card 3/3

FOKIN, M.N.; TIMONIN, V.A.; DANILOV, A.M.

Coulometry of the formation of the oxide film during the passivation of titanium. Dokl. AN SSSR 158 no.3:702-705 S '64.

(MIRA 17:10)

1. Institut fizicheskoy khimii AN SSSR. Predstavleno akademikom V.I. Spitsynym.

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7

Shah, Venet - Vassilios Vassilatos, Greek

1. Inability to point to date of possession of medals

2. No record of ownership of medals.

(MIRA 1971)

3. Payment for medals by third party.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755730006-7"

MAMLEYEV, R.Sh.; TIMONIN, V.I.

Results of testing "the transition zone" in the Pavlovskaya and  
Zelenogorskaya areas. Geol. nefti i gaza vol. 4, no. 4:38-41  
Ap '61. (MIRA 14:5)

1. Aznakayevskneft<sup>1</sup>,  
(Romashkino region—Oil fields--Production methods)

IIIONIN, K.K.

Л.Н.Ионин, к.к.; АКАД.ИМ.П.Л., альбиносман

Attachment to the communiqué of subscriber's telegraph appearance.  
Автом. телег. в сиан' 5 ле.9:37-38 С '61. (ЛН. К.К.)

1. Проверка инф. телеграфа о разведывательных дистанциях в сиан' 5 ле.

2. Проверка разведывательной сети (все пункты).

(Railroad communication systems)

(Delivery, equipment and supplies)

NAYGOVZIN, Ye.; TIMONIN, Z.

There are not trifles. Sov. torg. 35 no.9:36-39 S '62. (MIRA 16:2)  
(Clerks (Retail trade))

GRDINA, Yu.V.; GORDEYEVA, L.T.; TIMONINA, L.G.; ROMASHOVA, T.A.

Diffusion saturation of titanium alloys with copper. Metalloved. i term.  
obr. met. no.5:50-52 My '65. (MIRA 12:7)

L 11076-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3001055

S/0148/63/000/004/0129/0131

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.; Timonina, L. G.

57

56

TITLE: Carburization of titanium with the use of a paste carburizer and high-frequency induction heating 27

SOURCE: IVUZ. Chernaya metallurgiya, no. 4, 1963, 129-131

TOPIC TAGS: titanium carburizing, case depth, wear resistance, high-frequency induction heating, induction heating

ABSTRACT: A method of Ti carburization with a pastelike carburizer and high-frequency induction heating in an He atmosphere has been developed by the authors. Specimens of Ti alloys VT4 [4-5% Al, 1-2% Mn] and VT6 [C-120 AV-AISI] 3 mm in diameter and 200 mm long or 40 mm in diameter and 10 mm thick were coated with a paste consisting of silver graphite and a binder, dried, heated to 850-1100°C, and held for 10, 15, 20, and 30 min. With a carburization time of 15 min the depth of the carburized layer reached 0.25 mm, and the maximum hardness, 1780 HV<sub>50</sub>. The disk-shaped specimens were tested for wear resistance at 220 rpm under a 75-kg load without lubricant. Wear resistance was found to vary with carburization

Card1/2

L 11076-63

ACCESSION NR: AP3001055

time. The best results were obtained in specimens carburized for 15 min; they had almost no weight loss in a 4-hr test. With carburization time of 10 min the carburized layer was worn off in 20 min. Specimens carburized for 20 min and 30 min resisted well for 2 hr, but then were worn off rapidly. Orig. art. has: 3 figures.

ASSOCIATION: Sibirskiy metallurgicheskiy institut (Siberian Metallurgical Institute)

SUBMITTED: 26Jun62 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: ML NO REF Sov: 003 OTHER: 000

*llm/jm*  
Card 2/2

L 11076-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3001055

S/0148/63/000/004/0129/0131

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.; Timonina, L. G.

57

56

TITLE: Carburization of titanium with the use of a paste carburizer and high-frequency induction heating 27

SOURCE: IVUZ. Chernaya metallurgiya, no. 4, 1963, 129-131

TOPIC TAGS: titanium carburizing, case depth, wear resistance, high-frequency induction heating, induction heating

ABSTRACT: A method of Ti carburization with a pastelike carburizer and high-frequency induction heating in an He atmosphere has been developed by the authors. Specimens of Ti alloys VT4 [4-5% Al, 1-2% Mn] and VT6 [C-120 AV-AISI] 3 mm in diameter and 200 mm long or 40 mm in diameter and 10 mm thick were coated with a paste consisting of silver graphite and a binder, dried, heated to 850-1100°C, and held for 10, 15, 20, and 30 min. With a carburization time of 15 min the depth of the carburized layer reached 0.25 mm, and the maximum hardness, 1780 HV<sup>50</sup>. The disk-shaped specimens were tested for wear resistance at 220 rpm under a 75-kg load without lubricant. Wear resistance was found to vary with carburization

Card 1/2

L 11076-63  
ACCESSION NR: AP3001055

time. The best results were obtained in specimens carburized for 15 min; they had almost no weight loss in a 4-hr test. With carburization time of 10 min the carburized layer was worn off in 20 min. Specimens carburized for 20 min and 30 min resisted well for 2 hr, but then were worn off rapidly. Orig. art. has: 3 figures.

ASSOCIATION: Sibirskiy metallurgicheskiy institut (Siberian Metallurgical Institute)

SUBMITTED:	26Jun62	DATE ACQ:	11Jun63	ENCL:	00
SUB CODE:	ML	NO REF Sov:	003	OTHER:	000

*llm/yin*  
Card 2/2

L 7656-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) NJW/JD/GS

ACC NR: AT5024875

SOURCE CODE: UR/0000/65/000/000/0109/0115

AUTHOR: Grdina, Yu. V.; Gordeyeva, L. T.; Timonina, L. T.

70

ORG: Institute of Metalworking Problems, AN UkrSSR (Institut problem  
materialovedeniya AN UkrSSR)

69

D+1

TITLE: Case hardening of titanium by carburizing and nitriding with high-frequency heating

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Diffuzionnyye pokrytiya na metallakh (Diffusion coatings on metals). Kiev, Naukova dumka, 1965, 109-115

TOPIC TAGS: hardening, case hardening, titanium case hardening, titanium carburizing, titanium nitriding, titanium carbonitriding

ABSTRACT: Case hardening of titanium and VT-4 and VT-6 titanium alloy by carburizing or nitriding has been investigated. Cylindrical specimens 3 mm in diameter and 200 mm long, and disks 40 mm in diameter and 10 mm thick were carburized by painting a silvery graphite paste, hf heating up to 850—1100C, and holding for 10—30 min in a helium atmosphere. A case 0.25 mm deep was obtained in 15 min on specimens 3 mm in diameter; its microhardness was 1780 HV50, dropping to 400 HV50 at a depth of 0.4 mm. The disk specimens were tested for wear resistance in dry friction at 220 rpm and a load of 750 n. Disks carburized for 15 min showed no wear after 4-hr tests. Disks carburized for a shorter or longer time had much lower wear resistance. Nitriding produced similar results. The specimens were nitrided for 6, 10, 15, or 20 min at 850—1100C in a nitrogen-

Card 1/2

0701 2004

L 7656-66

ACC NR: AT5024875

filled chamber under pressure of a 40—50 mm of water column. The thickest case (up to 30  $\mu$ ) was obtained by holding for 20 min. The case had a microhardness of up to 2000 dan/mm<sup>2</sup>. No wear was observed after a 4-hr wear-resistance test. The nitrided case was found to be much more oxidation resistant than titanium alloys. The weight loss of nitrided alloy specimens at 1000C in air was 75% lower than that of the initial alloy. Orig. art. has: 7 figures.

[AZ]

SUB CODE: MM/ SUBM DATE: 06Aug65/ ORIG REF: 007/ OTH REF: 001/ ATD PRESS:

-4141

Card 202

SMIRNOV, L.A.; TIMONINA, V.M.; KORNEYEV, N.D.

Structure of rimmed steel section ingots capped with aluminum.  
Stal' 25 no.8:798-802 S '65. (MIRA 18:9)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov  
i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

KLEYN, A.L.; DANILOV, A.M.; Prinimali uchastiye: KOLYASNIKOV, M.P.; MISBAKHOV, A.K.; ANTROPOVA, N.G.; NESMEYANOV, Ye.V.; KHARITONOV, Yu.A.; TIMONINA, V.M.; LOPTEV, A.A.; TSIKAREV, V.G.

Accelerating the assimilation of lime during slag formation  
in basic open-hearth furnaces. Stal' 24 no.1:32-34 Ja '64.  
(MIRA 17:2)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh  
metallov i Zlatoustovskiy metallurgicheskiy zavod (for Kleyn,  
Danilov).

SMIRNOV, L.A.; TIMONINA, V.M.; KORNEYEV, N.B.; LOSHKINA, N.A.

Investigating the quality and mechanical properties of  
St. 3ps plate steel. Stal' 25 no.6:511-516 Je '65.

(NTIA 12:6)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallow  
i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

PASTUKHOV, A.I., kand.tekhn.nauk; SMIRNOV, L.A., inzh.; DZEMYAN, S.K., inzh.;  
SHCHEKALEV, Yu.S., inzh.; TIMONINA, V.M., tekhnik

New developments in research. Stal' 24 no.7:614 J1 '64.

(MIRA 18:1)

SMIRNOV, L.A.; TIMONINA, V.M.; KOMPANIYETS, G.M.; KORNEYEV, N.D.;  
VINOGRADOV, V.I.

Research carried out at the Urals Ferrous Metals Research Institute.  
Stal' 23 no.5:432, 467 My '63. (MIRA 16:5)  
(Steel-Metallurgy)

ROMANOV, A.A.; SMIRNOV, L.A.; TIMOMINA, V.M.

Pouring of rimmed steel in bottle-shaped molds. Stal' 21  
no.12:1076-1078 D '61. (MIRA 14:12)  
(Steel—Metallurgy)  
(Ingot molds)

L 12848-63  
ACCESSION NR: AP3001469

EWP(k)/EWP(q)/EWT(m)/BDS. AFFTC/ASD Pf-4 JD/HW 67  
S/0133/63/000/005/0432/0432 66

AUTHOR: Smirnov, L. A.; Timonina, V. M.; Kompaniyets, G. M.; Korneyev, N. D.;  
Vinogradov, V. I.

TITLE: In the Ural Scientific Research Institute of Ferrous Metallurgy

SOURCE: Stal', no. 5, 1963, 432

TOPIC TAGS: steel top casting, chemical sealing, aluminum powder, rimmed steel

ABSTRACT: Aluminum powder was used as an aftercharge for the chemical sealing of 7-ton square ingots. It was added under the metal flow in the top casting process, 5-6 seconds before closing of the stopper. Steels 0.8, 10, 15, St. 2 and St. 3khz were used in the experiment to determine the consumption of aluminum powder. The amount of powder varied from 80 to 300 grams per ton depending on the carbon content; the best sealing was achieved in ingots with over 0.12% carbon. The rolling of chemically sealed steel gave better results than rolling rimmed steel of the same profile. A lower percentage of bloom trimmings, a higher production of first-grade steel, and a lower amount of rejected products were observed in the former type. Moreover, the chemical sealing improved working conditions in the pouring bay. Orig. art. has: 3 tables.

Card 1/2

L 12848-63  
ACCESSION NR: AP3001469

ASSOCIATION: Ural'sky nauchno-issledovatel'skiy institut chernykh metallov;  
Nizhne-Tagil'sky metallurgicheskiy kombinat (Ural Scientific Research Institute  
of Ferrous Metals in Collaboration with Nizhne-Tagilsk Metallurgical Combine)

SUBMITTED: 00 DATE ACQ: 10Jun63 ENCL: 00  
SUB CODE: 00 NO REF Sov: 000 OTHER: 000

Card 2/2

TIMONOV, V.V.

Resultant and secondary currents in seas with tides. Trudy Okean.  
kom. 10 no.1:43-44 '60. (MIRA 14:6)

1. Leningradskiy gidrometeorologicheskiy institut.  
(Tides)  
(Ocean currents)

TIMONOV, V.V.

Elements of tidal kinematics. Trudy Okean. kom. 10 no.1:45-46  
'60. (MIRA 14:6)

1. Leningradskiy gidrometeorologicheskiy institut.  
(Tides)

TIMONOV, V.V.; GIRE, A.A.

Investigation of changes in the state of the system ocean - atmosphere.  
Trudy Okean. kom. 10 no.1:47-49 '60. (MIRA 14:6)

1. Leningradskiy gidrometeorologicheskiy institut.  
(Atlantic Ocean—Meteorology, Maritime)

MOLCHANOV, V.A.; TIMONOV, V.V.

Calculation of tidal phenomena in a shallow bay by the method of  
boundary values. Trudy GOIN no. 57:28-43 '50. (MIRA 14:1)  
(Tides)

TIMONOV, V.V.; ARSEN'YEVA, N.Ya.

Accuracy of calculating transverse fluctuations of water level  
from observations on tidal currents. Trudy GOIN no. 57:67-  
72 '60. (MIRA 14:1)  
(Tides)

TIMO NOV. V.V.

Kinematic analysis of tides. Trudy GOIN no.37:185-204 '59.  
(MIRA 13:4)  
(Tides)

18(5) PLACE I BOOK EXPLOITATION SOW/1907  
 Akademiya Nauk Ukrainskoy SSR. Kiyev Otdeleniye Tekhnicheskikh Nauk

Voprosy proizvodstva stali v T. 6 ("Problems of Steel Production," No. 6). Kiyev, Izd-vo Akademii Nauk Ukrainskoy SSR, 1958. 137 p. Brutto sild 140. 2,000 copies printed.

Sup. Ed.: N.N. Dobrohotov, Academician, Ukr. SSR Academy of Sciences; Ed. of Publishing House: V.M. Labirov; Tech. Ed.: V.F. Turishchuk.

PURPOSE: This book is intended for engineers and scientific personnel in the field of steel production.

CONTENTS: This is a collection of articles dealing with various aspects of the production of steel, including the designing of open-hearth furnaces, thermal processes in the furnaces, thermodynamics of steel-making processes, technology of producing high-grade steel, and changes in the size and shape of ingots. Other topics discussed are the properties of chrome-manganese stainless steels, improvement of ball-bearing steel, ingot quality, ingot defects, certain aspects of steaming and shape of mold, and certain aspects of steel rolling. Some of the articles are accompanied by references, both Soviet and non-Soviet.

"Zhurn. S. Kh. and I.P. Makogeych. Investigation of the Properties of Chrome-Manganese Stainless Steels" 41

"Prokorenko, E.K., and E.V. Verkhovtsev. Improving the Quality of Billets by Mill-Bearing Steel" 49

"Verkhovtsev, E.V., and E.K. Prokorenko. Ingot Defects Caused by Skin Folde Forming During the Rolling of Steel" 68

"Prokorenko, E.K., P.E. Fisichov, E.V. Verkhovtsev, and V.A. Vyshkovskiy. Isothermic Mixture for [Hastening] Hot Tops of Steel Castings" 77

"Verkhovtsev, V.A., K.P. Sabliyer, and V.P. Grefberguk. Effect of the Hydrodynamics of the Inclusion of Liquid Steel Into the Ingot Mold on Ingot Quality" 87

"Verkhovtsev, V.A., V.I. Perel'man, M.P. Lashkova, V.P. Grefberguk, and A.A. Klyuzeev. Effect of Tempering Temperature and Mold Shape on the Quality of Steel Ingots" 96

"Verkhovtsev, V.A., K.P. Sabliyer, and V.P. Grefberguk. Reduction of Head and Edge Creeps in the Rolling of Ingots" 110

"Verkhovtsev, V.A., V.P. Grefberguk, and A.M. Mel'nikov. An Investigation of the Conditions for Rolling Sheet Bar with Very Surface" 123

"Fedorovich, V.G. Experiments in the Conversion of High-phosphorous Pig Iron in a Converter With Side Blast of Oxygen" 130

AVAILABILITY: Library of Congress

SOW/1907  
 7-28-59

Card 1A

18(5) PHASE I BOOK EXPLOITATION SC7/1907  
 Akademiya nauk Ukrainskoy SSR. Kiyev Otdeleniye Tekhnicheskikh  
 Nauk

Voprosy proizvodstva stali VTP-6 (Problems of Steel Production, Nr. 6).  
 Kiyev, Akad.-vo AM Ukrainskoy SSR, 1958. 137 p. Krata issip in-  
 serted. 2,000 copies printed.

Resp. Ed.: M.M. Dobrohotov, Academician, Ukr. SSR Academy of  
 Sciences; Ed. of Publishing House: N.N. Labinova; Tech. Ed.:  
 V.I. Turchishin.

PURPOSE: This book is intended for engineers and scientific per-  
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 improvement of ball-bearing steel, ingot defects, ingot quality  
 as determined by temperature of casting and shape of mold, and  
 certain aspects of steel rolling. Some of the articles are ac-  
 companyed by references. Both Soviet and non-Soviet arti-  
 cles are included.  
 Yefan, B. Kh., and N.Z. Makenechny. Investigation of the Pro-  
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 Trofchentko, K.K., P.M. Timokhov, N.V. Verkhovtsev, and V.A.  
 Vyrobkovsky. Exothermic Reactions for Heating Hot Tops of Steel 77  
 Yefimov, V.A., M.P. Sabirov, and V.P. Griben'uk. Effect of the  
 Hydrodynamics of the Inflow of Liquid Steel Into the Ingot Mold  
 on Ingot Quality 87  
 Yefimov, V.A., V.I. Danilin, N.P. Lashina, V.P. Griben'uk, and  
 A.A. Kiselev. Effect of Teaming Temperature and Mold Shape on  
 the Quality of Steel Ingots 96  
 Yefimov, V.A., M.P. Sabirov, and V.P. Griben'uk. Reduction of Head  
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 Yefimov, V.A., V.P. Osipov, and A.M. Melashko. An Investigation  
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 Fedorovich, V.O. Experiments in the Conversion of High-phos-  
 phorus Pig Iron in a Converter With Side Blast of Oxygen 130

AVAILABLE: Library of Congress

60-148  
 7-35-59

CARD 3/8

PROKHORENKO, K.K.; TIMOKHOV, F.K.; VERKHOVTSEV, E.V.; VYSOKOVSKIY, V.A.

Exothermic mixture for hot tops on steel castings. Vop.proizv.stali  
no.6:77-86 '58. (MIRA 12:3)  
(Steel castings)

KRAMAR, V.Ya.; LISEYEV, A.S.; TIMOKHOV, I.F.

Contents of physics curriculum in connection with the problem of  
polytechnical education. Fiz. v shkole 18 no.2:56-57 Mr-kp '58.  
(MIRA 11:2)  
1. 4-ya srednyaya shkola, g. Konotop, Sumskoy oblasti (for Kramar).  
2. 538-ya srednaya shkola, Moskva (for Liseyev). 3. 9-ya srednaya  
shkola, g. Zaporozh'ye (for Timokhov).  
(Physics--Study and teaching)

TIMOKHOV, I. F.

47-58-2-10/30

AUTHORS: Kramar, V.Ya. (4th Secondary School, Konotop, Sumakaya Oblast')  
Liseyev, A.S. (536th Secondary School, Moscow); Timokhov, I. F.  
(9th Secondary School, Zaporozh'ye)

TITLE: On the Contents of a Physics Course in Connection With  
questions of Polytechnical Instruction (O soderzhanii kursa  
fiziki v svyazi s voprosami politekhnicheskogo obucheniya)

PERIODICAL: Fizika v Shkole, 1958, Nr 2, pp 56-57 (USSR)

ABSTRACT: Different opinions are expressed by the above mentioned authors  
on aspects of teaching physics. V.Ya. Kramar says that the se-  
paration of practical works on electro-engineering from physics,  
into an independent course is wrong. A.S. Liseyev writes that  
the teaching of physics in the VI and VII classes should be  
de-emphasized, and the number of hours of teaching physics in  
the VIII class should be increased. I.F. Timokhov complains of  
the lack of uniform teaching methods in this subject.

AVAILABLE: Library of Congress

Card 1/1 1. Physics-Study and teaching

TIMOKHOB, I.F. (g. Zaporozh'ya)

School excursion to a hispital x-ray room. Fiz. v shkole 15 no.5:  
95 S-O '55. (MIRA 9:1)

1. 9-ya srednyaya shkola  
(X rays--Therapeutic use) (Physics--Study and teaching)

TIMOKHOV, P. (g.Okha, Sakhalinskaya oblast')

Skill, courage, and resourcefulness. Pozh.delo 6 no.6:19 Je '60.  
(MIRA 13:7)  
(Okha--Petroleum industry--Fires and fire prevention)

TIMOKHOV, S.A.

Treatment of postoperative hernias by means of a free sieve  
graft. Khirurgia 35 no.3:104 Mr '59. (MIRA 12:8)  
(HERNIA) (SKIN GRAFTING)

TimckHov, Y.E.P.

15(7) PHASE I BOOK EXPLO.JANON JV/39/2

RSFSR. Moskovskiy gorodskoy ekonomicheskiy rayon. Sovet narodnogo khozyaystva

Gorodskoye v elektricheskoy pole vysokogo napryazheniya (Painting In A High Voltage Electric Field). Moscow, Tsentro byuro tekhn. inform. 1959. 63 p. (Series, Dariobrniya nauch i tekhnika.) Errata slip inserted. 1,500 copies printed.

Comittee [Specialists, Central Scientific Research Laboratory of the All-Union Industrial Bureau "Lakoraspokrytive"] Z. B. Frenchakov, Ye. N. Vladysheva, V. A. Dubenskiy, B. G. Kostylev, Ye. I. Lopatkina, Engineer; S. M. Serovnikov, Businessman, V. U. Stolyenko, Engineer and K. D. Shandrov, Engineer; A. P. Kuptsov, Ed.; B. A. Borovikov, Tech. Ed.; A. P. Kuptsov.

PURPOSE. This book is intended for workers, technicians, and engineers engaged in the manufacture, application, and development of equipment for spray painting in high voltage electric fields.

CONTENTS. The authors analyze the industrial and economic problems of spray painting in high voltage electric fields. The book treats the nature and theoretical principles of the spray-painting method, verified design specifications for spray painting equipment, and data on the manufacture and operation of such equipment. It also includes information on the experimental work carried out by the TANIL (Central Scientific Research Laboratory) in this field. No references are given.

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TIMOKHOV, Ye.P.

Magnetic thickness gauge for films. Lakokras.mat. i ikh prim.  
no.1:65-66 '60. (MIRA 14:4)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya Vsesoyuznoy  
pröizvodstvennoy kontory "Lakokraspokrytiye".  
(Films (Chemistry)) (Thickness measurement)

VETUKHNOVSKIY, Z.B., inzh.; VLADYCHINA, Ye.N., inzh.; GUBENSKIY, V.A.,  
inzh.; DORRENDORF, V.I., inzh.; SEREBRYANIKOV, S.N., inzh.;  
SOLIYENKO, V.O., inzh.; TIMOKHOV, Ye.P., inzh.; TYURIN, V.F.,  
vedushchiy inzh.; BOROVIKOV, B.A., red.; KUPTSOV, A.P., tekhn.red.

[Painting in a high voltage electric field] Okraska v elektri-  
cheskom pole vysokogo napriazheniya. Moskva, TSentral'noe biuro  
tekhn.informatsii, 1958. 63 p. (MIRA 12:?)

1. Russie (1917- R.S.F.S.R.) Moskovskiy gorodskoy ekonomicheskiy  
administrativnyy rayon. Sovet narodnogo khozyaystva. 2. TSentral'-  
naya neuchyo-issledovatel'skaya laboratoriya Vsesoyuznoy proizvod-  
stvennoy kontory "Lakokraspokrytiye" (for Vetukhnovskiy, Vladychina,  
Gubenskiy, Dorrendorf, Serebryanikov, Soliyenko, Timokhov).  
(Spray painting)

TIMOKHOVA, K. I.

SOROKINA, Ye.Yu.; TIMOKHOVA, K.I.

Late results of prevention (dispensary treatment) of frequently recurrent influenza. Klin.med. 35 no.5:112-115 My '57. (MLRA 10:8)

1. Iz klinicheskogo otdeleniya Instituta virusologii AMN SSSR imeni Ivanovskogo (dir. - prof. P.N.Kosyakov) i mediko-sanitarnoy chasti No.16 (nach. S.I.Smirnova)

(INFLUENZA, ther.  
in outpatient service)

(OUTPATIENT SERVICES  
management of recurrent influenza)

AID P - 5333

Subject : USSR/Aeronautics - history

Card 1/1 Pub. 135 - 12/24

Author : Timokhovich, I. V., Lt. Col., cand. of tech. sci.

Title : Soviet pilots in defensive battle at Smolensk in 1941

Periodical : Vest. vozd. flota, 12, 65-70, D 1956

Abstract : A review of the Soviet Air Force activities in the defensive battle at Smolensk, which lasted from the beginning of July until September 10, 1941, is given. The article is of informative value.

Institution : None

Submitted : No date

TIMOKHOVICH, P.P., kandidat tekhnicheskikh nauk.

Automatic control in the production of tomato paste. Trudy VNIKOP  
no.6:33-42 '56. (MLRA 10:5)  
(Canning industry) (Automatic control)

TIMOKHOVICH, P.P.

Automatic temperature regulation during the packaging of  
tomato products for preservation. Kons.i ov.prom. 15 no.1:  
16-18 Ja '60.  
(MIRA 13:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy  
i ovoshchesushil'noy promyshlennosti.  
(Tomato--Preservation)

~~TIMOKHOVICH, P.P.~~

Weak section of a pamphlet ("Automatic control of sterilization processes for canned foods and technical control for tin can production" by V.A.Ochkin.) Reviewed by P.P. Timokhovich.  
Kons.i ov.prom. 12 no.9:46-47 S '57. (MIRA 10:10)  
(Sterilization) (Automatic control)